

**REMARKS**

Claims 6-10 are rejected under 35 U.S.C. §112. Applicants traverse the rejection on the grounds that claims 6-10 are fully supported by the specification. The limitation of "determining a value of said first electrical output signal and outputting a second electrical signal as an air signal when said value of said first electrical signal is less than a predetermined value during a period of time when there is an absence of an input optical signal from said one node" is described in the specification.

Claims 6 and 7 continue to be rejected under 35 U.S.C. §102 as anticipated by O'Sullivan (U.S. Patent No.: 5,859,716) while claims 6-10 are rejected over of U.S. Patent No.: 5,617,238 to Bogdan while claim 6 is rejected as anticipated by Asahina and claim 6-8 are rejected as anticipated by Miyamori. Claim 6-10 are also rejected as anticipated by Neff and claims 8-10 are rejected over the combination of O'Sullivan (U.S. Patent No.: 5,418,785) or (U.S. Patent No.: 4,731,880).

As indicated at item 11 on page 8 of the final patent Office Action, the previously filed arguments were not persuasive because the newly added limitations were not described in the specification.

Applicants respectfully submit that the S/E modules of the present invention convert optical messages from the nodes  $T_n$  and  $T_{n+1}$  into output signals  $D_i$  as inputs to the logical decision gate 1. The purpose of the present invention is to determine whether there is excessive attenuation by comparing the output of decision gate 1 of the star coupler K which are the signals  $D_o$  sent back to the S/E module, with those signals coming from the modules and being sent to the star gate as indicated in the specification. The object is to provide a data bus which detects any degraded transmission quality. Prior optical bus structures, when the diodes become old or when the optical fibers are damaged, provide a reduction to the power of the receiver diode which can not be detected in the prior art. This degrading of the optical transmission quality can be detected by the transmitter/receiver module (S/E). The present invention makes

that determination and signals such an indication. This indication is given by way of this very brief low impulse signal as an additional signal  $D_i$  as stated at the bottom of page 3 of the specification. This additional signal can not be given if there is another optical signal being processed so that it must occur in the absence of another optical signal from the nodes  $T_m$ .

In other words, the system functions to transmit not only when there is an optical signal from  $T_n$  in which case it processes the signal as an electrical output to the coupler by way of gate 1, but it also functions to provide this additional signal  $D_i$  which results from the measurement of the attenuation within the module which is defined in the claim as determining the value of the first electrical signal and outputting a second electrical as an additional signal which is an error signal when the first electrical signal is less than a predetermined value. Furthermore, this only occurs when there is an absence of an input optical signal from the node. This is the only reasonable manner in which the S/E module can output another signal which is not the result of an input signal from the node  $T_n$ .

In conclusion, S/E module outputs a first normal signal in response to an input from  $T_n$  and it outputs a second signal when there is no input from  $T_n$  because that second signal (error signal) results from the comparison within the module S/E of a first electrical output signal with a predetermined value in order to define excessive attenuation. It is this manner in which the arrangement of the present invention functions to improve over the prior art discussed in the background of the invention by detecting a degrading data bus structure.

Therefore, for all of the reasons indicated with respect to defining over the art of record discussed in the June 23, 2004 Amendments, Applicants respectfully submit that the present invention defines subject matter not shown or disclosed being obvious by the references and that each of the claims 6-10 are fully supported by the originally filed specification.

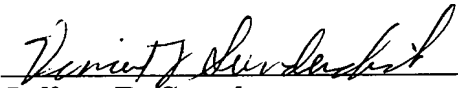
Accordingly, Applicants respectfully request that this application be allowed and be passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #080437.49163US).

Respectfully submitted,

April 28, 2005

  
Jeffrey D. Sanok  
Registration No. 32,169

CROWELL & MORING LLP  
Intellectual Property Group  
P.O. Box 14300  
Washington, DC 20044-4300  
Telephone No.: (202) 624-2500  
Facsimile No.: (202) 628-8844  
JDS:VJS:ddd

**VINCENT J. SUNDERDICK**  
**Registration No. 29,004**

#373191